

REMARKS

Claim Status

Claims 1-23 are currently pending, with claims 1, 16 and 21 being in independent form. The drawings have been amended. The Abstract has been amended. Claims 1-23 have been amended. The amendments to claims 4-6, 8, 9, 11, 12, 14 and 15 correct minor claim wording, and are cosmetic in nature. No new matter has been added. Reconsideration of the application, as herein amended, is respectfully requested.

Priority Claim

The Examiner has stated that “applicant has not filed a certified copy of the FR 04/53015 application as required by 35 U.S.C. §119(b)”. Applicants thank the Examiner for confirming and acknowledging, during a telephone call to the Office of the undersigned, that the FR 04/53015 application is readily accessible over the Internet at the website maintained by WIPO. Applicants therefore request that the Examiner confirm that a certified copy of the priority document, i.e., FR 04/53015, need not be provided by applicants.

Information Disclosure Statement

The Examiner has indicated on the copy of Form 1449A (“Information Disclosure Statement by Applicant”) attached to the Office Action that the European reference, i.e., EP 1 298 836 listed on the Information Disclosure Statement (IDS) filed on August 21, 2006 was not considered because no English language translation was received. (A line is drawn through this reference.)

However, MPEP § 609.03 states:

The examiner will consider the documents cited in the international search report in a PCT national stage application *when the Form PCT/DO/EO/903 indicates that both the international search report and the copies of the documents are present in the national stage file.* In such a case, *the examiner should consider the documents from the international search report and indicate by a statement in the first Office action that the information has been considered.* (Emphasis Added)

In the instant application, the Form PCT/DO/EO/905 that was returned on April 21, 2008 indicates that both the international search report and copies of the listed documents are present in the national stage file, and are readily accessible over the Internet at WIPO's website. As a result, it is requested that the Examiner consider all of the documents from the international search report, i.e., the EP 1 298 836 reference.

In any event, in the interest of advancing prosecution on the merits, an Information Disclosure Statement (IDS) filed concurrently with the instant amendment includes the EP 1 298 836 reference and an Abstract. An acknowledgement of the receipt, entry and consideration of this IDS is requested. Because the EP 1 298 836 reference should have been considered in accordance with MPEP §609.03, it is believed that no fee is required for the IDS. If the Examiner disagrees, however, the fee should be charged to our PTO Deposit Account No. 03-2412.

Overview of the Office Action

The drawings have been objected to for certain informalities. Withdrawal of this objection is now in order, as explained below.

The Abstract has been objected to for certain informalities. Withdrawal of this objection is now deemed to be in order.

Claims 1, 7, 13, 16 and 21 have been objected to for minor informalities. Withdrawal of this objection is deemed to be in order, as explained below.

Claims 1-3, 8, 10 and 17-23 stand rejected under 35 U.S.C. §112, second paragraph, as indefinite for failure to particularly point out and claim the subject matter which applicants regard as the invention. Withdrawal of this rejection is in order, as also explained below.

Claims 16-23 stand rejected under 35 U.S.C. §101 as directed to non-statutory subject matter.

Claims 1-12 and 14-23 stand rejected under 35 U.S.C. §103(a) as unpatentable over WO 98/24224 (“*Tonnby*”) in view of U.S. Patent No. 6,850,495 (“*Baum*”).

Claims 11-13 stand rejected under 35 U.S.C. §103(a) as unpatentable over *Tonnby* in view of *Baum*, and further in view of U.S. Patent No. 6,188,699 (“*Lang*”).

Applicants have carefully considered the Examiner’s rejections and the comments provided in support thereof. For the following reasons, Applicants assert that all claims now presented for examination in the application are patentable over the cited art.

Descriptive Summary of the Cited Art

Tonnby relates to a general access system for providing access to communication services, such as telecommunications, data communications and distribution of TV and radio (see Abstract, lines 1-2). According to *Tonnby*, “[t]he general access system ... comprises a connectivity network, at least one access adapter, to which at least one service providing network

is connected, and at least one network terminal, to which at least one terminal is connected” (see pg. 10, lines 4-7).

Baum relates to an aggregation unit for aggregating physical connections from customers for presentation to an access router and for de-aggregating traffic from a shared link from the access router (see col. 7, lines 60-63).

Lang relates to “a multi-channel network device for interfacing between a plurality of physical data links and a control processor, where each physical data link is characterized by a data stream of data packets communicated according to a data link control protocol” (see col. 1, lines 52-57).

Summary of the Claimed Subject Matter

The following descriptive details are based on the specification. They are provided only for the convenience of the Examiner as part of the discussion presented herein, and are not intended to argue limitations which are unclaimed.

Disclosed are a method, system and module used by a terminal to access, via a multipath access network, a service made available on a communication network by a service provider (see paragraph [0001] of the instant specification). In accordance with the claimed invention, the method is used by a terminal to access the service via the multipath access network when that service is made available on a communication network by a service provider which, in situations where the terminal cannot know in advance how an IP service will be accessed, would provide the terminal at the time of IP service discovery with information, such as information in an SDP file. The information provided enables the terminal to automatically tune to a correct channel (i.e., a logical channel/physical medium) of the access network or to the correct interface to a

multipath access network without requiring an access operator to create any tables to obtain a link between encapsulated IP services and the channel (i.e., the logical channel/physical medium) that transports the encapsulated IP services (see, e.g., paragraph [0027], lines 2-14 and paragraph [0019]).

Amendments Addressing Informalities

The Examiner has stated that “descriptive legends are required for the entirety of Fig. 1”. In response to this objection to the drawings, applicants submit herewith amended Fig. 1, which has been amended to include descriptive legends in each schematic block. Fig. 2 has been provided on a separate replacement sheet, but has not been amended. Withdrawal of the objection to the drawings is deemed to be in order, and entry of amended Fig. 1, as well as unamended Fig. 2, is respectfully requested.

The Examiner (at pg. 3 of the Office Action) has objected to the wording of the Abstract of the Disclosure. In particular, the Examiner has objected to the inclusion of the term “(@, P)” in the Abstract. In response, applicants have enclosed herewith an amended Abstract that addresses the objection in a self-explanatory manner. The Abstract as amended herein is now properly narrative in form, limited to a single paragraph and within 50 to 150 words. Withdrawal of the objection to the Abstract is deemed to be in order.

The Examiner (at pg. 3 of the Office Action) has objected to claims 1, 7, 13, 16 and 21 based on a number of informalities. Applicants have amended each of the identified claims to address each specific objection in a self-explanatory manner. In response to the Examiner’s statement that in “Claim 16 lines 5-6, and Claim 21 lines 3-4 ... ‘adapted’: to ... [is] ... Language that suggests or makes optional” and raises a question as to the limiting effect of the

language following the recited term, applicants have amended independent claims 16 and 21 to now recite “configured to” so that the limiting effect of the language following the recited term is now suitably defined. Withdrawal of these objections is thus deemed to be in order.

The Examiner has rejected claims 1-3, 8, 10 and 17-23 as indefinite. Applicants thank the Examiner for his detailed review of the claims, as well as for his suggested claim language. Applicants have amended each of the identified claims to address each specific rejection in a self-explanatory manner. In view of the foregoing, applicants contend that now amended claims 1-3, 8, 10 and 17-23 properly comply with the requirements of 35 U.S.C. §112, second paragraph. Withdrawal of the rejection is therefore deemed to be in order.

Patentability of Independent Claims 16 and 21 Under 35 U.S.C. §101

The Examiner (at pg. 5 of the Office Action) has stated that:

Regarding claims 16 and 21, the claimed invention “comprising a mediation module” as software per se (specification of the application makes no reference as to whether ‘mediation’ module is hardware or software, nor can it be adequately inferred by one of ordinary skill in the art that the ‘mediation’ module is limited to hardware or a combination of hardware and software), does not fall within at least one of the four categories of patent eligible subject matter recited in 35 U.S.C. [§101] (process, machine, manufacture, or composition of matter).

Applicants dispute the Examiner’s interpretation of independent claims 16 and 21. The specification of the instant invention clearly depicts Applicants’ claimed access system shown in the drawings, as for example in FIG. 1, and it is suitably described in the specification. Nothing in the specification states or suggests that the access system, or its various elements, must or are implemented purely as a computer program. Indeed, the various elements in the access system of claim 16 are disclosed as a “physical medium” or “physical media” – most certainly not the

terminology generally used to identify a computer program or executable routines. Thus, independent claim 16 recites that “the access system comprises a mediation module (4)...”. The claimed access system of independent claim 16 implements the method of independent claim 1, and independent claim 16 has been amended to correspond to method claim 1. The mediation device of independent claim 21 is described, for example, at paragraph [0060] of U.S. Pub. No. 2008/0192728 (i.e., the instant specification). Independent claim 21 has been amended to correspond to independent claim 16.

Moreover, the instant specification explains that “[a]n access system is referred to below as a multichannel access network if it contains either one physical medium providing a plurality of logical channels or a plurality of physical media” (see paragraph [0005], lines 1-4). Therefore, independent claims 16 and 21 are clearly directed to a system and device, not merely to a computer program, as asserted by the Examiner.

In view of the foregoing, Applicants contend that independent claims 16 and 21 as now amended are properly directed to statutory subject matter; reconsideration and withdrawal of the rejection under 35 U.S.C. §101 are accordingly deemed to be in order, and notice to that effect is requested.

Patentability of the Independent Claims under 35 U.S.C. §103(a)

Independent claim 1 has been amended to clarify the salient aspects of the claimed invention. That is, independent claim 1 now recites, *inter alia*, “determining, at the mediation module, a path identifier to be used by the terminal (T) to access said service via the multipath access network and associating said path identifier with said information supplied by the service

provider (S)”. Independent claims 16 and 21 have been amended to recite corresponding features. No new matter has been added.

The Examiner (at pg. 7 of the Office Action) has acknowledged that *Tonnby* fails to disclose “a path finder”, as recited in independent claims 1, 16 and 21, and cites *Baum* for this feature. Applicants disagree, however, that the combination of *Tonnby* and *Baum* achieves the subject matter of independent claims 1, 16 and 21. *Tonnby* (pg. 16, lines 11-14; Fig. 1) describes “a general access system, generally denoted by 1, … [which] comprises a connectivity network 10, implementing an access network, which has capacity of transporting information in a transparent manner between selected ports of the connectivity network using an address plan”.

Tonnby (pg. 16, lines 16-20) explains that “[a] number of network terminals 20 are connected to the connectivity network 10, which network terminals 20 in turn are connected to a number of terminals 30. The type of terminals 30 is variable within one network terminal 20 and the type and number of terminals 30 may be different for different network terminals 20. A number of access adapters 40 are connected between the connectivity network 10 and a number of service providing networks 50”. *Tonnby* (pg. 16, lines 20-23) additionally explains that “[a]ll access adapters 40 and network terminals 20 are associated with at least one address of the connectivity network 10”.

Tonnby thus teaches a system that comprises a single network, i.e., the connectivity network (10). Each network terminal (30) is connected to user terminal (20). In the *Tonnby* system, the network terminals (30) and the access adapters are each directly connected to the connectivity network (10). A plurality of service providing networks (50) are also included in the *Tonnby* system, and each of these service providing networks is connected to the connectivity network (10) via the access adapters (40). *Tonnby* additionally teaches that the disclosed

connectivity network (10) implements an access network. However, there is no teaching or suggestion in *Tonnby* of the specific nature or configuration of the access network. That is, *Tonnby* fails to teach or suggest that the access network comprises a multipath access network, as recited in independent claims 1, 16 and 17. *Tonnby* thus fails to teach or suggest the step of “determining, at the mediation module, a path identifier to be used by the terminal (T) to access said service via the multipath access network and associating said path identifier with said information supplied by the service provider (S)”, as recited in now amended independent claim 1 and correspondingly recited in now amended independent claims 16 and 21.

Moreover, *Tonnby* fails to teach or suggest that the user terminals (20) of the *Tonnby* system are connected to the network on which the service is available via a multipath access network. Independent claim 1 recites the step of “supplying a mediation module with information from the service provider which relates to at least an address of said service in the communication network” and “determining, at the mediation module, a path identifier to be used by the terminal (T) to access said service via the multipath access network and associating said path identifier with said information supplied by the service provider (S)”. Independent claim 1 requires (i) a communication network and (ii) a multipath access network. There is nothing whatsoever in *Tonnby* of how to access a service that is made available on a first communication network by a service provider via a second and distinct network that is a multipath access network. *Tonnby* thus fails to teach or suggest the expressly recited subject matter of now amended independent claims 1, 16 and 21.

Baum, on the other hand, makes no mention of the claimed multipath access network of now amended independent claims 1, 16 and 21. *Baum* is related to “methods, apparatus and data structures for aggregating traffic, which may originate from various media transport types, for

presentation to a router, such as an access router of a network” (see col. 1, lines 12-15). However, *Baum* fails to teach or suggest *at least* the step of “determining, at the mediation module, a path identifier to be used by the terminal (T) to access said service via the multipath access network and associating said path identifier with said information supplied by the service provider (S)”, as recited in now amended independent claim 1 and correspondingly recited in now amended independent claims 16 and 21. The combination of *Tonnby* and *Baum* therefore fails to achieve the expressly recited subject matter of now amended independent claims 1, 16 and 21, because *Baum* fails to provide that which *Tonnby* lacks.

The core concept associated with applicants’ claimed invention is that, in cases where access by a terminal to a service made available to a communication network (e.g. network (2) of Fig. 1 or the Internet) requires the determination of at least one path in a multipath access network (e.g., network (3) of Fig. 1 or a Digital Audio Broadcasting (DAB) network), a mediation module determines the path in a configuration step. The mediation module associates an identifier of the path to the information relating to the service and supplied by the service provider. When the terminal seeks access to the service on the communication network, via the multipath access network, the terminal obtains the path identifier along with the information relating to the service (i.e., the address) during a service discovery process. Consequently, terminals are advantageously provided with the ability to directly and easily access the service on the communication network via the identified path in the multipath access network. The combination of *Tonnby* and *Baum* fails to teach or suggest applicants’ claimed invention that encompasses such advantageous features and functionality, i.e., a method, access system and module that make it possible to access via a multipath access network a service made available on a communication network by a service provider.

Independent claim 16 correspondingly defines an access system used by a terminal (T) to access via a multipath access network a service made available on a communication network by a service provider. Independent claim 21 correspondingly defines a mediation module for an access system used by a terminal (T) to access via a multipath access network a service made available on a communication network by a service provider. Independent claims 16 and 21 are therefore likewise deemed to be patentable over the combination of *Tonnby* and *Baum* for *at least* those reasons discussed above with respect to now-amended independent method claim 1.

In view of the foregoing, amended independent claims 1, 16 and 21 are deemed to be patentable over the combination of *Tonnby* and *Baum*. Reconsideration and withdrawal of the rejections under 35 U.S.C. §103(a) are requested, and early notice to that effect is earnestly solicited.

Patentability of the Dependent Claims 11-13 under 35 U.S.C. §103(a)

The Examiner (at pgs. 12-13 of the Office Action) has acknowledged that the combination of *Tonnby* and *Baum* fails to disclose “wherein, if a plurality of technologies can be used, the mediation module defines a relative priority of said technologies” as recited in dependent claim 11, “wherein, if a plurality of technologies can be used, the terminal (T) defines a relative priority of said technologies” as recited in dependent claim 12 and “wherein, if there is a plurality of interfaces for a given technology, the terminal (T) determines the interface to be used” as recited independent claim 13, and cites *Lang* for these features.

Applicants disagree, however, that any combination of *Tonnby*, *Baum* and *Lang* achieves the subject matter of independent claim 1, from which dependent claims 11-13 depends. There is nothing in *Lang* to cure the above-discussed deficiencies in *Tonnby* and *Baum* relating to the

lack of teachings of applicants' claimed multipath access network, as recited in independent claim 1.

Lang describes a multi-channel device that "includes a plurality of receive-side line interfaces, with each receive-side line interface having at least one channel associated therewith" (see col. 1, lines 57-59). *Lang* (col. 1, lines 60-63) explains that "[e]ach receive-side line interface is operative to receive incoming data packets from one of the physical data links such that each incoming data packet is received in at least one incoming data segment". *Lang* (col. 1, lines 63-65) additionally explains that "[e]ach receive-side line interface is also operative to determine a time-slot number for each incoming data segment arriving thereon". However, *Lang* fails to teach or suggest applicants' claimed recitations with respect to the multipath access network, as recited in applicants' independent claim 1. *Tonnby*, *Baum* and *Lang*, individually or in combination, thus fail to teach or suggest the features recited in independent claim 1, and dependent claims 11-13 are therefore deemed to be patentable based *at least* on their dependency from claim 1.

Dependent Claims

In view of the patentability of independent claims 1, 16 and 21 for the reasons presented above, each of dependent claims 2-15, 17-20, 22 and 23 are respectfully deemed to be patentable therewith over the cited art. Moreover, each of these claims includes features which serve to still further distinguish the claimed invention over the applied art.

Conclusion

Based on all of the above, applicant submits that the present application is now in full and proper condition for allowance. Prompt and favorable action to this effect, and early passage of the application to issue, are once more solicited.

Should the Examiner have any comments, questions, suggestions or objections, the Examiner is respectfully requested to telephone the undersigned to facilitate an early resolution of any outstanding issues.

It is believed that no fees or charges are required at this time in connection with the present application. However, if any fees or charges are required at this time, they may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,
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